

Attorney's Docket No.:14580-038001

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method for forming a vertical ferrocapacitor structure comprising:

forming electrode elements over a substructure, the electrode elements being in electrical contact with electrically conductive elements extending into the substructure; and

depositing ferroelectric material between the electrode elements, thereby forming a layer covering the sides of the electrode elements;

depositing electrically conductive material over the ferroelectric layer into gaps between the electrode elements; and

removing the electrically conductive material and ferroelectric material above the electrode elements so that the ferroelectric material is arranged as layers formed on the lateral sides of the electrode elements.

2. (Canceled)

3. (Previously Presented) A method according to claim 1 including etching the ferroelectric layer to reduce its thickness.

4. (Canceled)

5. (Original) A method according to claim 1 in which the electrode elements are formed over an insulating layer containing openings, the electrodes contacting the electrically conductive elements of the substructure through the openings.

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6. (Original) A ferrocapacitor device formed by a method according to claim 1.

7. (Original) An FeRAM device including at least one ferrocapacitor formed by a method according to claim 1.

8. (Currently Amended) An FeRAM device including a vertical ferrocapacitor structure comprising electrode elements, electrically conductive elements and ferroelectric elements, the electrode elements and ferroelectric elements being formed over a substructure, the electrodes electrode elements being in electrical contact with the electrically conductive elements extending into the substructure, the ferroelectric elements being arranged between the electrodes as layers formed on the lateral sides of the electrodes electrode elements and the comprising electrically conductive material being positioned in lateral gaps between the electrode elements overlying the ferroelectric layers, wherein both the ferroelectric elements and electrically conductive material do not overlie the uppermost surface of the electrode elements.

9. (Currently Amended) The method according to claim 1, further including the step of planarizing the electrode elements, ferroelectric layer and support electrically conductive material so as to create a flat surface.

10. (Previously Presented) The method according to claim 9, further including the step of depositing an Al₂O₃ layer on the planarized flat surface.

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11. (Previously Presented) The FeRAM device according to claim 8, wherein the electrically conductive material acts as a dummy electrode for electrically connecting the ferroelectric elements formed on adjacent pairs of electrode elements, the electrode elements electrically connecting the ferrocapsacitor structure with desired components of the substructure.

12. (Previously Presented) The method according to claim 1 wherein the electrically conductive material acts as a dummy electrode for electrically connecting the ferroelectric material formed on adjacent pairs of electrode elements, the electrode elements electrically connecting the ferrocapsacitor structure with desired components of the substructure.